

INTERNATIONAL SEARCH REPORT

Inte I Application No
PCT/IT 03/00727

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F17/30 G06K19/07 G06K19/067 G07C9/00 G06K7/10
G06K17/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06F G06K G07C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 585 154 B1 (LAVI ZVI ET AL) 1 July 2003 (2003-07-01)	1-4,7-9; 14
Y	abstract; figures 1,2 column 3, line 39 - line 45 column 3, line 61 - column 4, line 19 column 4, line 31 - line 49 column 5, line 1 - column 6, line 52	9,15,18
X	US 2002/180588 A1 (WALDNER MICHELE A ET AL) 5 December 2002 (2002-12-05)	1-4,7,8, 14
Y	abstract; figures 1,2,8-10 paragraphs [0027] - [0031] paragraph [0043] - paragraph [0048] paragraph [0053] paragraph [0060] - paragraph [0065] paragraph [0076]	9,15,18
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

30 June 2004

Date of mailing of the international search report

14.09.2004

Name and mailing address of the ISA

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PCT/IT 03/00727

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 127 928 A (ISSACMAN MARVIN ET AL) 3 October 2000 (2000-10-03) abstract; figures 3,4,9,10 column 2, line 9 - line 20 column 4, line 48 - column 9, line 18 column 10, line 17 - line 36 column 11, line 5 - line 20 -----	1-4,7,8, 14
E	EP 1 398 711 A (RICOH KK) 17 March 2004 (2004-03-17) abstract; figures 1A,4-7 paragraph [0013] - paragraph [0018] paragraph [0035] - paragraph [0058] paragraph [0078] - paragraph [0107] -----	1-3,7,14
X	EP 0 292 249 A (GEN ELECTRIC CO PLC) 23 November 1988 (1988-11-23) the whole document -----	1-3,14
A	WANT R ET AL: "UBIQUITOUS ELECTRONIC TAGGING" IEEE DISTRIBUTED SYSTEMS ONLINE, vol. 1, no. 2, September 2000 (2000-09), pages 1-6, XP002252291 page 2, right-hand column - page 3, left-hand column page 5, left-hand column -----	1-4,7-9, 14,15,18

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International application No.
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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.: 19
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-4, 7-9, 14, 15, 18

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 19

Independent claim 19 does not meet the requirements of Article 6 PCT because it is not clear, as it uses vague and unclear wording (e.g. "information of ray orientation", "elaborating", "map (..) for documents and or box") and refers to previously undefined features (e.g. "the stored information", "said digital text"), and is not fully supported by the description. Moreover, the present description fails to disclose the subject matter of the said claim in a manner sufficiently clear and complete (Article 5 PCT).

In the present case, claim 19 lacks clarity and support to such extent, and the application so lacks disclosure, that a meaningful search for the said claim is not possible (Article 17(2)(b) PCT).

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-4, 7-9, 14, 15, 18

An apparatus and method for managing documents, involving acquiring (e.g. scanning) and storing the documents' contents (images), which appear to be characterised in that electronic labels (e.g. RF tags) are attached to the paper documents to store information regarding the documents and that means are provided to retrieve at least part of said information.

Dependent claims present in this group seem to describe embodiments of the aforementioned alleged invention, in which a box for paper versions of documents is additionally provided, potentially equipped with a memory unit containing e.g. the documents' contents, to enable searching and retrieving said contents directly from the said memory unit and identifying the location (box) in which the documents searched for are physically kept (stocked).

The problem to be solved by the subject matter of these claims seems to be how to provide a system/method to electronically query and search contents of paper documents stored in containers (boxes) in a physical storage area (e.g. archive, warehouse), where connecting to a server storing contents (electronic versions) of these documents is not convenient or such a server is not provided, without opening the containers and taking the documents out.

2. claims: 5-6, 10-13, 16, 17

An apparatus and method for managing documents, which appear to be characterised in that electronic labels (e.g. RF tags) are attached to the paper documents to store information regarding the documents and that means are provided to retrieve at least part of said information, as well as that an enclosure/box is provided to store paper versions of these documents.

Different dependent claims present in this group seem to describe different embodiments of the aforementioned alleged invention, including assigning an electronic label to the box, the label comprising both information concerning the box itself (e.g. box identifier or/and position or number of documents stored in the box) and the document(s) stored inside, as well as inventory-related methods, e.g. to check number or (apparently) presence of documents in the box, presence of new boxes or/and documents in the storage area or integrity of the enclosure/box.

The problems to be solved by the subject matter of these claims seem to be how to provide a wireless inventory system/method to increase security in paper documents storage areas by monitoring and immediately discovering events of theft or tampering, as well as to generate inventory lists automatically.

The common features of the claims in the two groups defined above are as follows:

apparatus/method for managing documents, comprising means/steps for/of: acquiring and storing at least one image of a document, associating an electronic label to said document, said label storing first information regarding the document, and retrieving at least part of said information of said label. An additional feature comprised in or mentioned by subsets of claims in the two groups defined above is an enclosure/box for storing/containing said documents.

All these common features are known in the art, see e.g. document US6585154-A (see abstract, col.3 l.39-45, col.3 l.61 - col.4 l.19, col.4 l.32-49, col.5 l.4-9, col.5 l.15-20, col.5 l.63 - col.6 l.52) or even EP0292249-A (published in year 1988), the latter document combined with the common knowledge about scanning and/or OCR-methods used to acquire image/contents of a document).

Since all the said common features are known and the aforementioned two different groups of claims are directed to the solution of different problems, these three different groups of claims are neither linked by the same or corresponding special technical features nor is there a single inventive concept in the claims, and thus the claims lack unity of invention (Rule 13 PCT).

INTERNATIONAL SEARCH REPORT

information on patent family members

Initial Application No
PCT/IT 03/00727

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6585154	B1	01-07-2003	NONE
US 2002180588	A1	05-12-2002	CA 2449301 A1 12-12-2002 EP 1399870 A2 24-03-2004 WO 02099730 A2 12-12-2002 US 2002196126 A1 26-12-2002
US 6127928	A	03-10-2000	US 5936527 A 10-08-1999
EP 1398711	A	17-03-2004	US 2004078749 A1 22-04-2004 EP 1398711 A1 17-03-2004 JP 2004127277 A 22-04-2004
EP 0292249	A	23-11-1988	GB 2204970 A 23-11-1988 GB 2204972 A 23-11-1988 AU 1643688 A 24-11-1988 EP 0292249 A2 23-11-1988 JP 1054584 A 02-03-1989 NO 882138 A 21-11-1988 ZA 8803413 A 15-11-1988

Box No. VIII (iv) DECLARATION: INVENTORSHIP (only for the purposes of the designation of the United States of America)
The declaration must conform to the following standardized wording provided for in Section 214; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (iv). If this Box is not used, this sheet should not be included in the request.

**Declaration of inventorship (Rules 4.17(iv) and 51bis.1(a)(iv))
 for the purposes of the designation of the United States of America:**

I hereby declare that I believe I am the original, first and sole (if only one inventor is listed below) or joint (if more than one inventor is listed below) inventor of the subject matter which is claimed and for which a patent is sought.

This declaration is directed to the international application of which it forms a part (if filing declaration with application).

This declaration is directed to international application No. PCT/..... (if furnishing declaration pursuant to Rule 26ter).

I hereby declare that my residence, mailing address, and citizenship are as stated next to my name.

I hereby state that I have reviewed and understand the contents of the above-identified international application, including the claims of said application. I have identified in the request of said application, in compliance with PCT Rule 4.10, any claim to foreign priority, and I have identified below, under the heading "Prior Applications," by application number, country or Member of the World Trade Organization, day, month and year of filing, any application for a patent or inventor's certificate filed in a country other than the United States of America, including any PCT international application designating at least one country other than the United States of America, having a filing date before that of the application on which foreign priority is claimed.

Prior Applications:

I hereby acknowledge the duty to disclose information that is known by me to be material to patentability as defined by 37 C.F.R. § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the PCT international filing date of the continuation-in-part application.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name: Valerio Abate

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Citizenship: Italian

Inventor's Signature: Valerio Abate
 (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)

Date: 07/11/2003
 (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)

Name: Alberto Conti

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Citizenship: Italian

Inventor's Signature: Alberto Conti
 (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)

Date: 07/11/2003
 (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)

☐ This declaration is continued on the following sheet, "Continuation of Box No. VIII (iv)".

Sheet No. ... 7.6

Box No. VIII (v) DECLARATION: NON-PREJUDICIAL DISCLOSURES OR EXCEPTIONS TO LACK OF NOVELTY

The declaration must conform to the standardized wording provided for in Section 215; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (v). If this Box is not used, this sheet should not be included in the request.

Declaration as to non-prejudicial disclosures or exceptions to lack of novelty (Rules 4.17(v) and 51bis.1(a)(v)):

Name: Michela Bianchi

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Citizenship: Italian

Inventor's signature: 

Date: 07/11/2003

☐ This declaration is continued on the following sheet, "Continuation of Box No. VIII (v)".